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NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS	3	AUG 06	FSTA enhanced with new thesaurus edition
NEWS	4	AUG 13	CA/Capplus enhanced with additional kind codes for granted patents
NEWS	5	AUG 20	CA/Capplus enhanced with CAS indexing in pre-1907 records
NEWS	6	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS	7	AUG 27	USPATOLD now available on STN
NEWS	8	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS	9	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS	10	SEP 13	FORIS renamed to SOFIS
NEWS	11	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS	12	SEP 17	CA/Capplus enhanced with printed CA page images from 1967-1998
NEWS	13	SEP 17	Capplus coverage extended to include traditional medicine patents
NEWS	14	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	15	OCT 02	CA/Capplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS	16	OCT 19	BEILSTEIN updated with new compounds
NEWS	17	NOV 15	Derwent Indian patent publication number format enhanced
NEWS	18	NOV 19	WPIX enhanced with XML display format
NEWS	19	NOV 30	ICSD reloaded with enhancements
NEWS	20	DEC 04	LINPADOCDB now available on STN
NEWS	21	DEC 14	BEILSTEIN pricing structure to change
NEWS	22	DEC 17	USPATOLD added to additional database clusters
NEWS	23	DEC 17	IMSDRUGCONF removed from database clusters and STN
NEWS	24	DEC 17	DGENE now includes more than 10 million sequences
NEWS	25	DEC 17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS	26	DEC 17	MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS	27	DEC 17	CA/Capplus enhanced with new custom IPC display formats
NEWS	28	DEC 17	STN Viewer enhanced with full-text patent content from USPATOLD

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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NEWS IPC8 For general information regarding STN implementation of IPC 8

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FILE 'HOME' ENTERED AT 12:38:19 ON 18 DEC 2007

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 12:38:29 ON 18 DEC 2007

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 17 DEC 2007 HIGHEST RN 958449-41-7

DICTIONARY FILE UPDATES: 17 DEC 2007 HIGHEST RN 958449-41-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

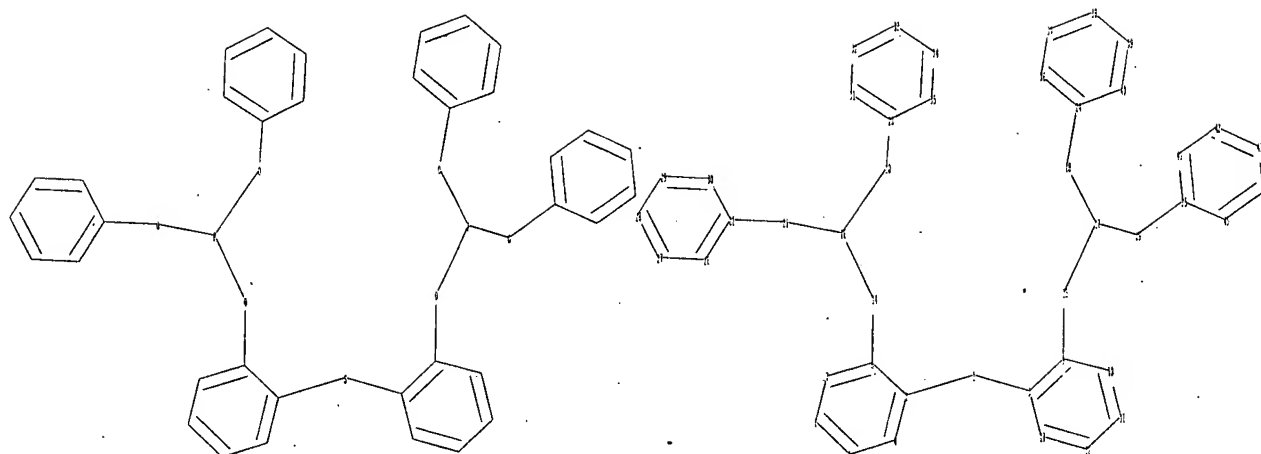
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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10521324\Struc 1.str



chain nodes :

1 14 15 16 17 18 19 20 21

ring nodes :

2 3 4 5 6 7 8 9 10 11 12 13 22 23 24 25 26 27 28 29 30 31 32  
33 34 35 36 37 38 39 40 41 42 43 44 45

chain bonds :

1-2 1-3 8-14 9-15 14-16 15-17 16-20 16-21 17-18 17-19 18-24 19-25 20-23  
21-22

ring bonds :

2-4 2-8 3-9 3-13 4-5 5-6 6-7 7-8 9-10 10-11 11-12 12-13 22-26 22-30  
23-31 23-35 24-36 24-40 25-41 25-45 26-27 27-28 28-29 29-30 31-32 32-33  
33-34 34-35 36-37 37-38 38-39 39-40 41-42 42-43 43-44 44-45

exact/norm bonds :

1-2 1-3 8-14 9-15 14-16 15-17 16-20 16-21 17-18 17-19 18-24 19-25 20-23  
21-22

normalized bonds :

2-4 2-8 3-9 3-13 4-5 5-6 6-7 7-8 9-10 10-11 11-12 12-13 22-26 22-30  
23-31 23-35 24-36 24-40 25-41 25-45 26-27 27-28 28-29 29-30 31-32 32-33  
33-34 34-35 36-37 37-38 38-39 39-40 41-42 42-43 43-44 44-45

Match level :

1:CLASS 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS  
19:CLASS 20:CLASS 21:CLASS 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom  
28:Atom 29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom  
37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 42:Atom 43:Atom 44:Atom 45:Atom

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> l1

SAMPLE SEARCH INITIATED 12:38:49 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 5 TO ITERATE

100.0% PROCESSED 5 ITERATIONS

4 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 5 TO 234

PROJECTED ANSWERS: 4 TO 200

L2 4 SEA SSS SAM L1

=> l1 full

FULL SEARCH INITIATED 12:38:53 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 136 TO ITERATE

100.0% PROCESSED 136 ITERATIONS

81 ANSWERS

SEARCH TIME: 00.00.01

L3 81 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

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FILE COVERS 1907 - 18 Dec 2007 VOL 147 ISS 26

FILE LAST UPDATED: 17 Dec 2007 (20071217/ED)

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<http://www.cas.org/infopolicy.html>

=> l3

L4                    9 L3

=> d ibib abs hitstr 1-9

L4 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1018472 CAPLUS

DOCUMENT NUMBER: 141:405226

TITLE:

INVENTOR(S): Process for manufacturing indium carboxylates and use as co-catalysts in hydrocyanation and other reactions  
Galland, Jean Christophe; Lamy, Franck; Chaudret, Bruno; Sabo, Etienne Sylviane

PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.; Centre National de la Recherche Scientifique CNRS

SOURCE: Fr. Demande, 10 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2855175	A1	20041126	FR 2003-6144	20030522
FR 2855175	B1	20060922		

PRIORITY APPLN. INFO.: FR 2003-6144 20030522

OTHER SOURCE(S): MARPAT 141:405226

AB [Machine Translation of Descriptors]. The present invention relates to a manufacturing process of composed of indium. Elle more particularly relates to a

manufacturing process of carboxylates of indium, and more particularly of indium

tricarboxylates presenting the properties of the acids of proceeed

Lewis. Ce consists in making react, in anhydrous medium, an indium halogenure with a compound of general formula (I) r-coo-m (II) Dans which m indicates an alkaline metal or ion NH4+, in the presence of a polar

anhydrous

solvent aprotic.

IT 646523-97-9

RL: CAT (Catalyst use); USES (Uses)

(ligand for nickel(0) as co-catalyst with indium carboxylate for hydrocyanation of pentenenitrile)

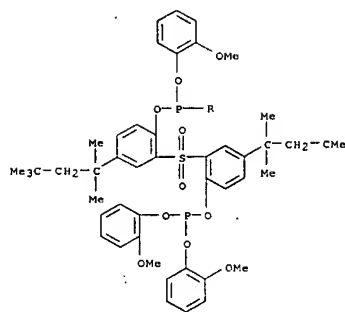
RN 646523-97-9 CAPLUS

CN Phosphorous acid, sulfonylbis[4-(1,1,3,3-tetramethylbutyl)-2,1-phenylene] tetrakis(2-methoxyphenyl) ester (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:40978 CAPLUS

DOCUMENT NUMBER: 140:113234

TITLE:

INVENTOR(S): Process for manufacture of nitrile compounds from ethylenically unsaturated compounds  
Galland, Jean Christophe; Didillon, Blaise; Marion, Philippe; Bourgeois, Damien

PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.

SOURCE: Fr. Demande, 97 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2842197	A1	20040116	FR 2002-8904	20020715
WO 2004007435	A2	20040122	WO 2003-FR2191	20030711
WO 2004007435	A3	20040422		

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RW: GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG

AU 2003267514 A1 20040202 AU 2003-267514 20030711

EP 1521738 A2 20050413 EP 2003-748205 20030711

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LT, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

CN 1674989 A 20050928 CN 2003-819590 20030711

JP 2005533095 T 20051104 JP 2004-520771 20030711

IN 2005CN00186 A 20070330 IN 2005-CN186 20050215

US 2006100455 A1 20060511 US 2005-166595 20050624

US 7253298 B2 20070807 US 2005-521324 20050921

US 2006128980 A1 20060615 US 2002-8904 A 20020715

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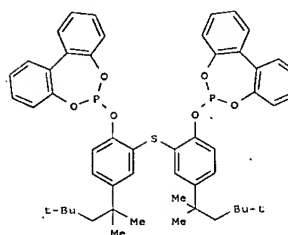
US 2005-521324 A1 20050921

OTHER SOURCE(S): CASREACT 140:113234; MARPAT 140:113234

G1

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

(Continued)



AB Dienes such as butadiene or substituted olefins such as alkenenitriles are

hydrocyanated in the presence of a metal complex catalyst including a transition metal such as nickel and an aromatic ligand based on cyclic or linear triesters of phosphorous, arsenous, or antimonious acids such as

I. This ligand improves the selectivity of the hydrocyanation for providing linear nitriles.

IT 646523-43-5P 646523-44-6P 646523-45-7P

646523-46-8P 646523-47-9P 646523-48-0P

646523-49-1P 646523-50-2P 646523-51-3P

646523-52-4P 646523-53-5P 646523-54-6P

646523-55-7P 646523-56-8P 646523-57-9P

646523-58-0P 646523-59-1P 646523-60-2P

646523-61-3P 646523-62-4P 646523-63-5P

646523-64-6P 646523-65-7P 646523-66-8P

646523-67-9P 646523-68-0P 646523-69-1P

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646523-97-9P 646523-98-0P 646523-99-1P

646523-100-2P 646523-101-3P 646523-102-4P

RL: CAT (Catalyst use); IMP (Industrial manufacture); PREP (Preparation);

USES (Uses)

(manufacture of linear nitrile compds. from ethylenically unsatd.

compds. in

presence of transition metal complexes with cyclic or linear triesters

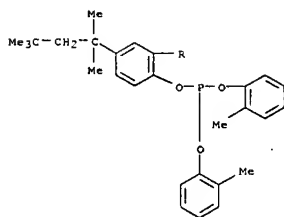
of phosphorous, arsenous, or antimonious acids)

RN 646523-43-5 CAPLUS

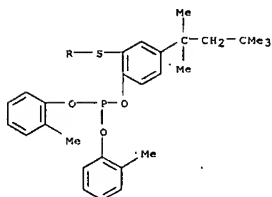
CN Phosphorous acid, thiois[4-(1,1,3,3-tetramethylbutyl)-2,1-phenylene] tetrakis(2-methylphenyl) ester (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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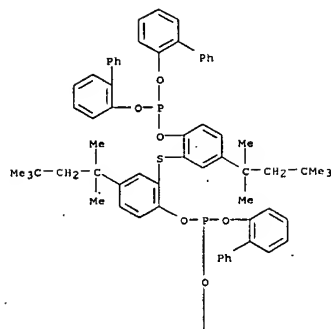
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 tetrakis[(1,1'-biphenyl)-2-yl] ester (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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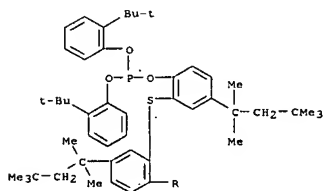
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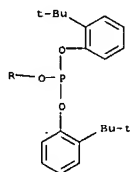
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 tetrakis[2-(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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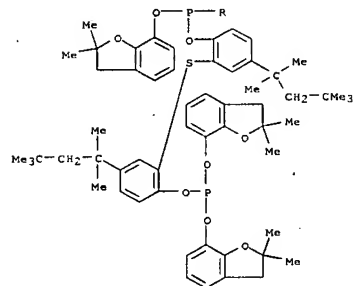
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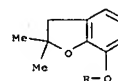
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 tetrakis[2,3-dihydro-2,2-dimethyl-7-benzofuran-5-yl] ester (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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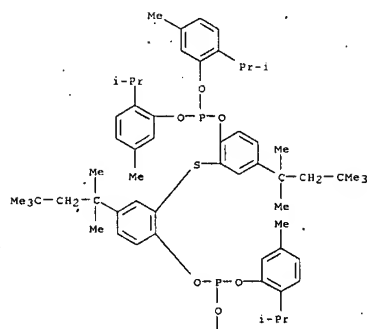
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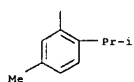
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 tetrakis[5-methyl-2-(1-methylethyl)phenyl] ester (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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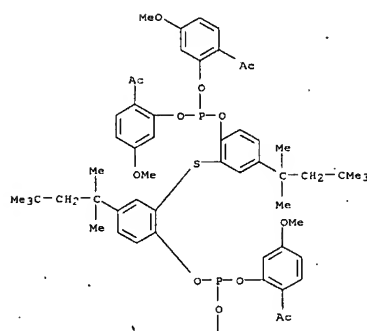
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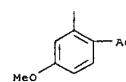
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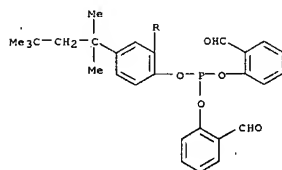
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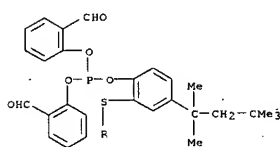
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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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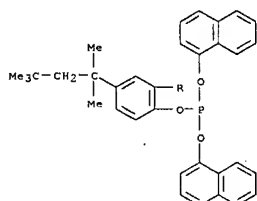


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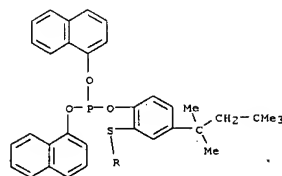
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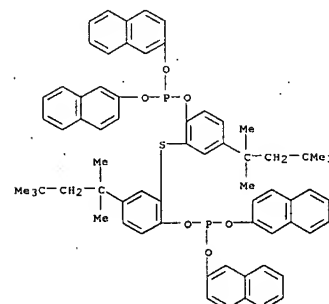


L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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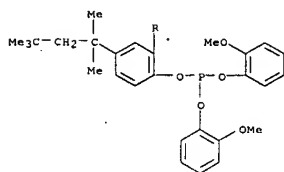
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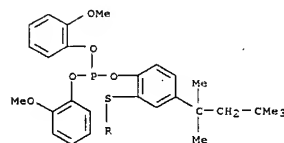
L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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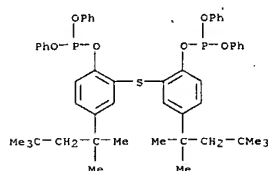
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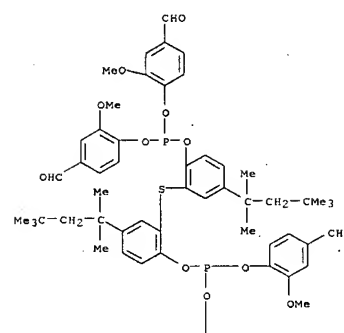


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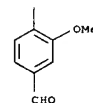
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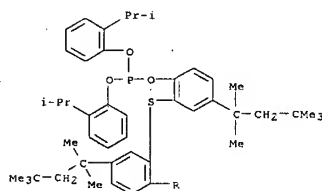


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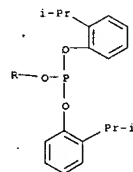
L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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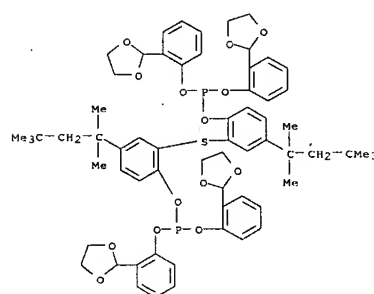
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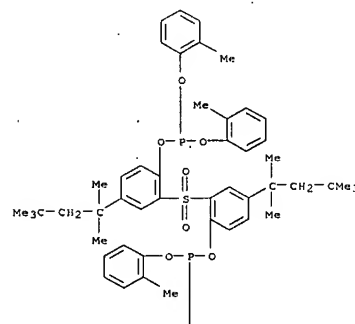
L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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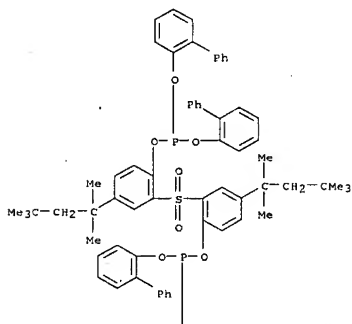
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RN 646523-65-1 CAPLUS  
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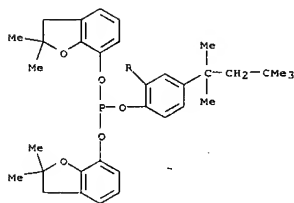


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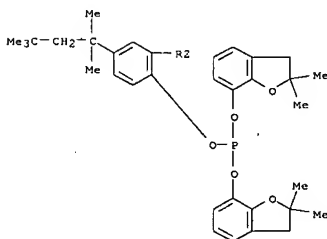


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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
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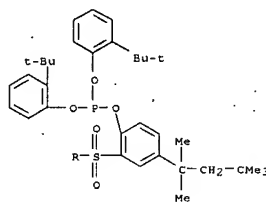
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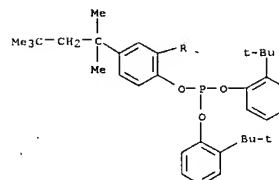
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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
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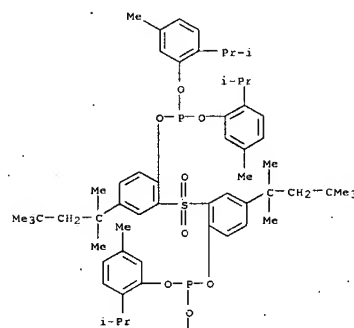


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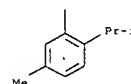


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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
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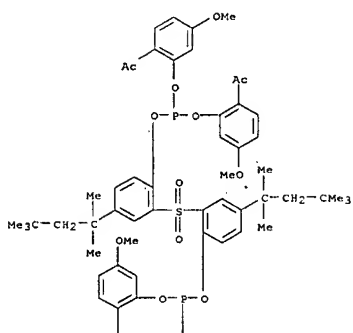
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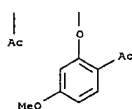
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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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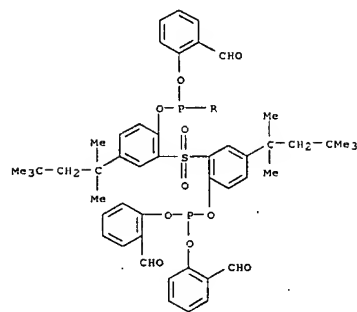
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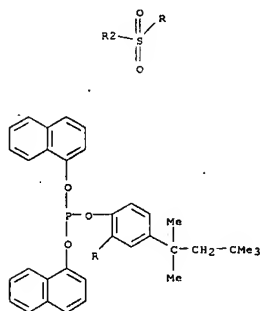
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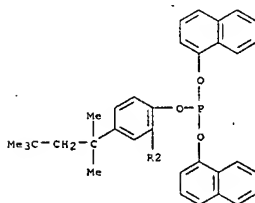
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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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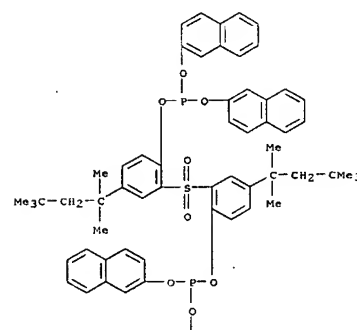
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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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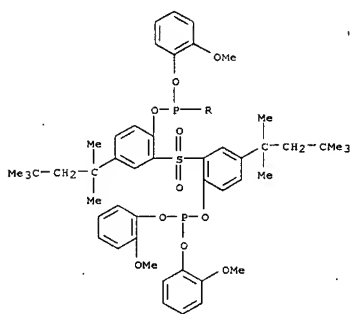


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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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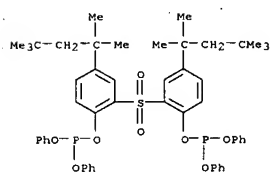


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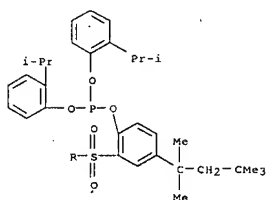
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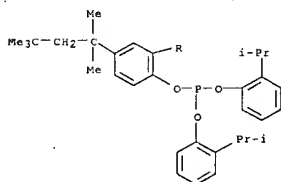
L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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RN 646524-21-2 CAPLUS

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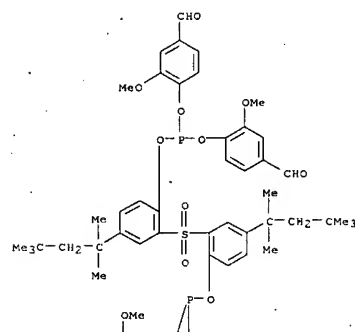
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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

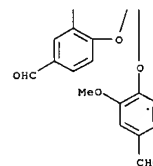
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CN Phosphorous acid, sulfonylbis[4-(1,1,3,3-tetramethylbutyl)-2,1-phenylene] tetrakis(4-formyl-2-methoxyphenyl) ester (9CI) (CA INDEX NAME)



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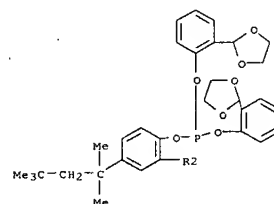
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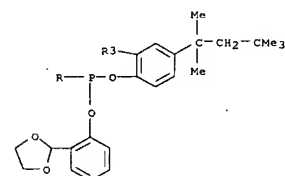
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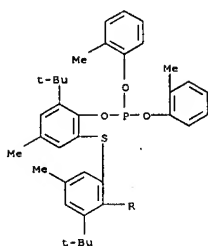
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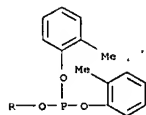
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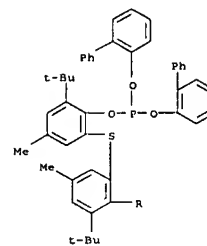


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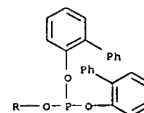
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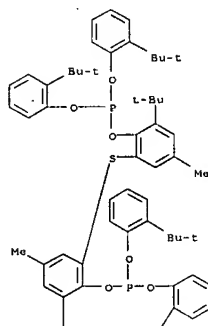


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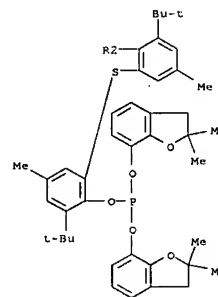


RN 646524-33-6 CAPLUS  
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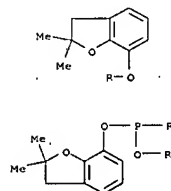
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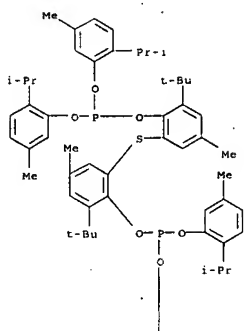
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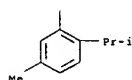
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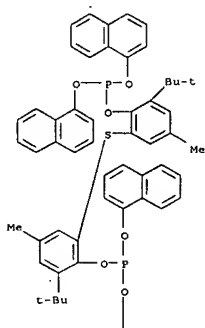
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 tetrakis(2-acetyl-5-methoxyphenyl) ester (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 CN Phosphorous acid, thiobis[6-(1,1-dimethylethyl)-4-methyl-2,1-phenylene]  
 tetra-1-naphthalenyl ester (9CI) (CA INDEX NAME)

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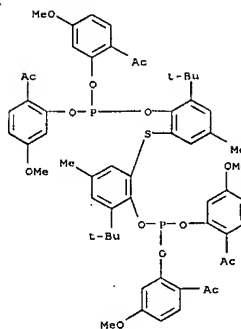


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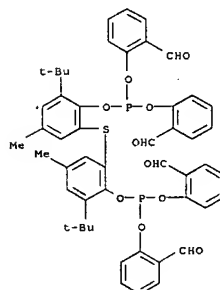


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 tetra-2-naphthalenyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

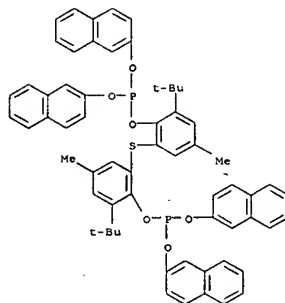


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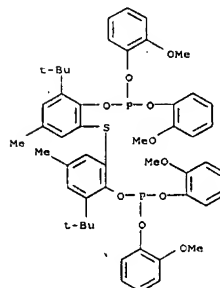


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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

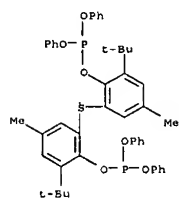


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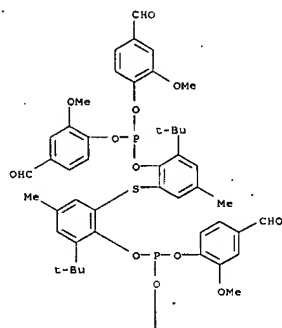
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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



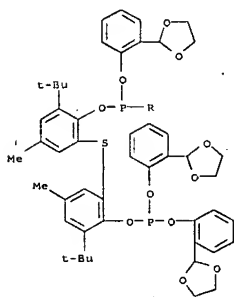
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 CN Phosphorous acid, thiobis[6-(1,1-dimethylethyl)-4-methyl-2,1-phenylene] tetrakis(4-formyl-2-methoxyphenyl) ester (9CI) (CA INDEX NAME)

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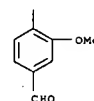
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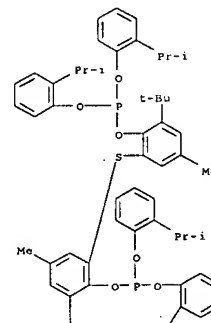
L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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RN 646524-58-5 CAPLUS  
 CN Phosphorous acid, thiobis[6-(1,1-dimethylethyl)-4-methyl-2,1-phenylene] tetrakis[2-(1-methylethyl)phenyl] ester (9CI) (CA INDEX NAME)

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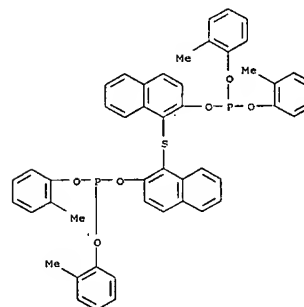


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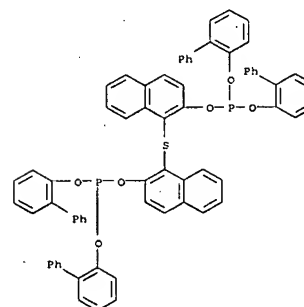


RN 646524-66-5 CAPLUS  
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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

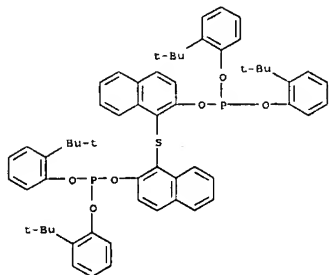


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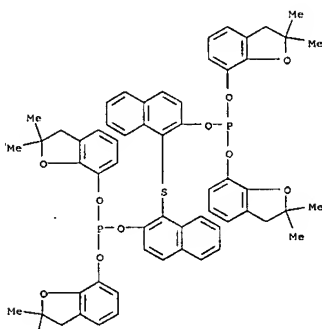
RN 646524-71-2 CAPLUS  
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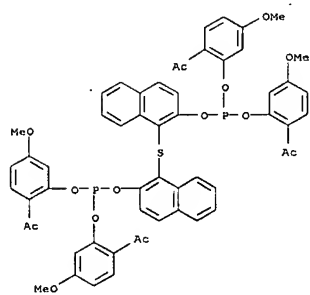


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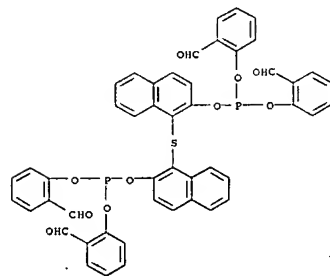
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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



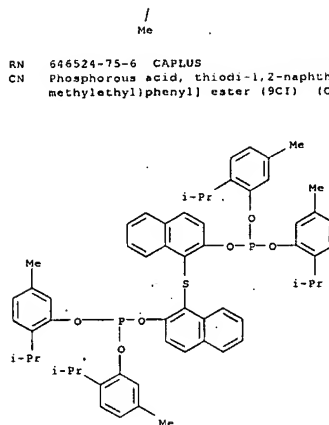
RN 646524-79-0 CAPLUS  
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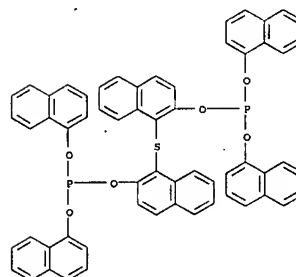
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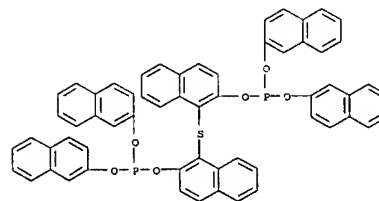


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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



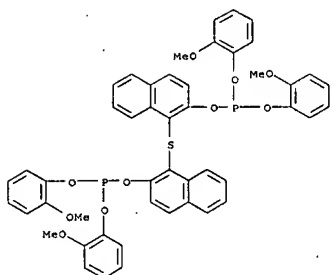
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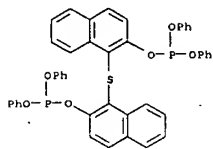
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L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

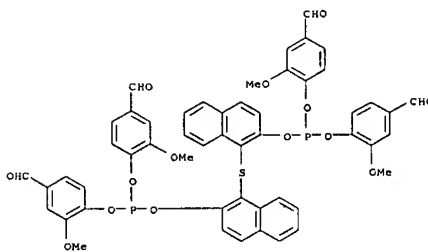


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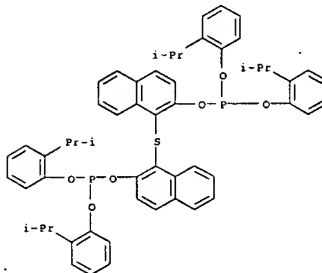


RN 646525-01-1 CAPLUS  
CN Phosphorous acid, thiodi-1,2-naphthalenediyl tetrakis(4-formyl-2-methoxyphenyl) ester (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

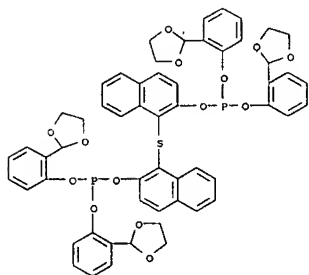


RN 646525-04-4 CAPLUS  
CN Phosphorous acid, thiodi-1,2-naphthalenediyl tetrakis[2-(1-methylethyl)phenyl] ester (9CI) (CA INDEX NAME)



RN 646525-12-4 CAPLUS  
CN Phosphorous acid, thiodi-1,2-naphthalenediyl tetrakis[2-(1,3-dioxolan-2-yl)phenyl] ester (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1969:68955 CAPLUS  
DOCUMENT NUMBER: 70:68955  
ORIGINAL REFERENCE NO.: 70:12925a, 12928a  
TITLE: Thermal stabilization of polypropylene  
AUTHOR(S): Pleshakov, M. G.; Tikhonova, T. I.; Kuliev, A. M.;  
Namezov, I. I.; Mamedov, F. N.; Mustafaev, N. P.;  
Novruzov, N. M.  
CORPORATE SOURCE: Inst. Khim. Prisdok, Baku, USSR  
SOURCE: Khimicheskie Volokna (1968), (6), 70-1  
CODEN: KVLKA4; ISSN: 0023-1118  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian

AB Because of the similarity in degradation mechanisms of polyolefins and lubricating oils, some S-containing and P-containing compds. used as antioxidants for various fuels and oils were tested for thermal stabilization of polypropylene (I). The effectiveness of the additives to inhibit the degradation of powdered I (intrinsic viscosity in Decalin at 135° = 1.7) was evaluated from the induction period in the oxidation of I at 200° at an O pressure of 200 mm. The stabilizing effectiveness of the additives improved with increasing content of S and P, but it declined

with increasing alkyl chain length in alkylaromatic phosphites. The most effective thermal stabilizer for I was 2,2'-thiobis(4-tert-amylphenol) bis(dicyclohexyl phosphite).

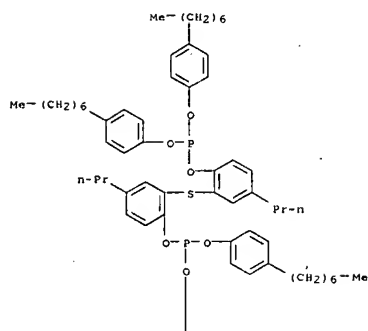
IT 22811-11-6 22811-13-8 23101-37-3  
23101-38-4 23101-39-5  
RL: USES (Uses)

(propene polymers thermal stabilization with)

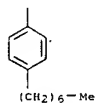
RN 22811-11-6 CAPLUS  
CN Phosphorous acid, thiobis(5-propyl-o-phenylene) tetrakis(p-heptylphenyl) ester (8CI) (CA INDEX NAME)

L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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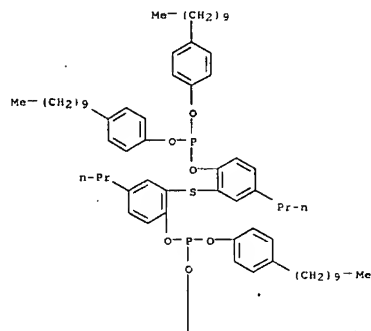
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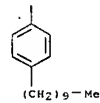
RN 22911-13-8 CAPLUS  
CN Phosphorous acid, thiobis(5-propyl-o-phenylene) tetrakis(p-decylphenyl) ester (8CI) (CA INDEX NAME)

L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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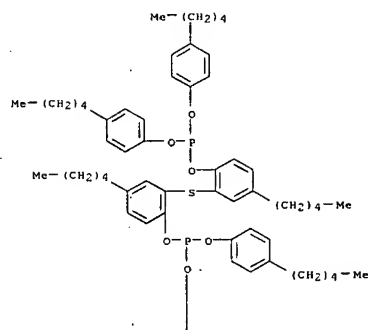
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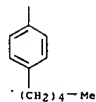
RN 23101-37-3 CAPLUS  
CN Phosphorous acid, thiobis(4-pentyl-o-phenylene) tetrakis(p-pentylphenyl) ester (8CI) (CA INDEX NAME)

L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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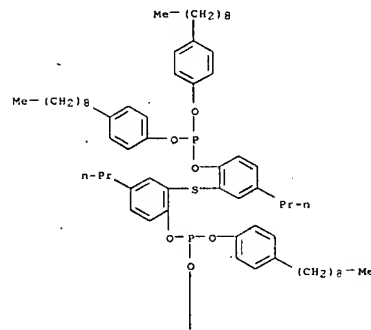
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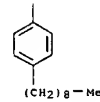
RN 23101-38-4 CAPLUS  
CN Phosphorous acid, thiobis(5-propyl-o-phenylene) tetrakis(p-nonylphenyl) ester (8CI) (CA INDEX NAME)

L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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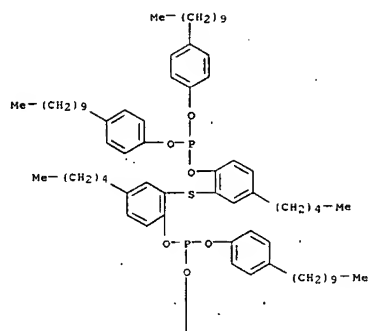


RN 23101-39-5 CAPLUS  
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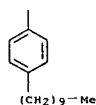
L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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L4 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1966:491373 CAPLUS

DOCUMENT NUMBER: 65:91373

ORIGINAL REFERENCE NO.: 65:17133a-e

TITLE: Stabilization of polypropylene

AUTHOR(S): Akhmedzade, D. A.; Yasnopol'skii, V. D.; Mamedova, D.

A.; Gevorgova, E. N.

SOURCE: Azerbaidzhanskii Khimicheskii Zhurnal (1966), (1),

70-6

CODEN: AZKZAU; ISSN: 0005-2531

DOCUMENT TYPE:

Journal

LANGUAGE:

Russian

G1 For diagram(s), see printed CA Issue.

AB Phosphite esters and their sulfides were synthesized and tested as stabilizers against thermal oxidation and photodegradation of bulk polypropylene. [(RO)2PO]2R' (I) (R = Me2CHCH2C6H4, R' = (CH2)2, p-C6H4, CH2C6H4CH2, or C6H4CMe2C6H4) were prepared by reaction of ROH with PCl3

in

boiling C6H6. The ClP(OR)2 formed was dissolved in C5H5N, R'(OH)2 was gradually added at room temperature, and the mixture then heated on a water bath

for 15-20 min. The C6H6 layer was separated and C6H6 was distilled at 5-10 mm.

The sulfides of structure II (R = Me(CH2)5, Ph, methylcyclohexyl, Me2CHCH2C6H4, Me(CH2)7C6H4; R' = Me2CHCH2CH2) were prepared from ClP(OR)2 and alkylphenol sulfides in C5H5N. The Me2CO solns. of stabilizers were mixed with powdered polypropylene. Me2CO was evaporated and the polymer

was

molded into plates, which were heated at 100° for 20 hrs. or irradiated with uv for 40 hrs. at 50°. The concentration of stabilizers in the polymer was 0.1 mole/kg. The tensile strength and elongation at break were measured before and after aging. The compound I with R' =

(CH2)2

had only a small stabilizing effect, whereas the effectiveness,  $\epsilon$ , (the ratio of tensile strengths after and before aging) of the other 3 stabilizers was 0.95-1.0 for thermooxid. and 0.84-0.90 for photodegradation. The compds. II with R = Me(CH2)5 and Ph caused a complete degradation already during molding. The  $\epsilon$  of other II stabilizers for thermal oxidation was 0.88-0.94. The maximum protective

action

(n = 0.974) vs. uv was found for p-AcOC6H4OP(OC6H4CH2CHMe2)2, the min. for II with R = Me2CHCH2C6H4 (n = 0.655).

IT 107459-12-1

(Derived from data in the 7th Collective Formula Index (1962-1966))

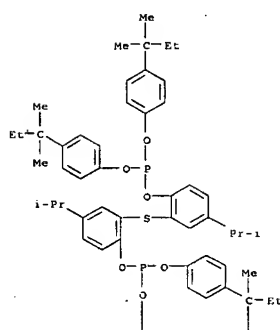
RN 107459-12-1 CAPLUS

CN Phosphorous acid, bis(p-tert-pentylphenyl) ester, diester with 2,2'-thiobis[p-isopropylphenol] (7C1) (CA INDEX NAME)

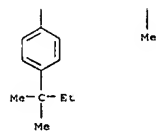
L4 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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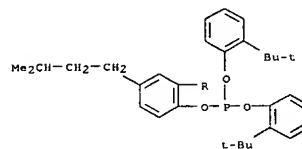
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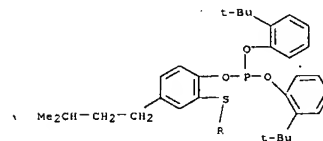
L4 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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IT 857180-65-5, Phosphorous acid, bis(tert-butylphenyl) ester, diester with thiois[4-isopentylphenol] (as stabilizer for propene polymers)

RN 857180-65-5 CAPLUS

CN Phosphorous acid, bis(tert-butylphenyl) ester, diester with thiois[4-isopentylphenol] (7C1) (CA INDEX NAME)

L4 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1966:491372 CAPLUS

DOCUMENT NUMBER: 65:91372

ORIGINAL REFERENCE NO.: 65:17132h,17133a

TITLE: Thiobisphenols as effective stabilizers for polyolefins

AUTHOR(S): Egidia, P. M.; Khin'kis, S. S.; Bereva, I. S.; Matveev, E. N.

SOURCE: Plastikheskie Massy (1966), (7), 26-7

CODEN: PLMSAI; ISSN: 0554-2901

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB cf. Ger. 1,140,923, CA 59, 2727f. The dependence of the stabilizing effect of thiobisphenols on their structure was studied for 2,2'-thiobis[4-methyl-6-(R-substituted)phenol], where R is methylbenzyl (I), iso-bornyl, tert-butyl, and cumyl, and for 4,4'-thiobis[3-methyl-6-tert-butylphenol] (II). The stabilizing effect was characterized by the duration of the induction period of O absorption at 160° (V. B. Miller, M. B. Neiman and Yu. A. Shlyapnikov, Vysokomol. Soedin. 1, 1703(1959)) and by changes in the phys.-mech. properties of polyethylene

P 2020 T (III) during its accelerated aging at 160° on the rollers. The stabilizers were introduced into III in Me<sub>2</sub>CO solns. in an amount of 0.002 mole of stabilizer/kg. of III. The phys., mech., and dielec. properties of III with and without the stabilizers after 10 min., 4 and 6 hrs. of aging are tabulated. All the stabilizers were highly effective. They increased the induction period to 10-46 hrs. Most effective were II and the I-containing stabilizer. With them, the initial III properties remained unchanged during 6 hrs. aging.

IT 107459-12-1

(Derived from data in the 7th Collective Formula Index (1962-1966))

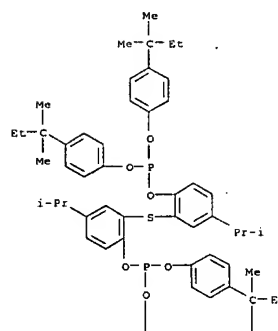
RN 107459-12-1 CAPLUS

CN Phosphorous acid, bis(p-tert-pentylphenyl) ester, diester with 2,2'-thiobis(p-isopropylphenol) (7CI) (CA INDEX NAME)

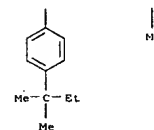
L4 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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L4 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1964:403507 CAPLUS

DOCUMENT NUMBER: 61:3507

ORIGINAL REFERENCE NO.: 61:504a-c

TITLE: Preparation of sulfur-and phosphorus-containing mixtures that improve the properties of oils

AUTHOR(S): Kuliev, A. M.; Mamedova, P. S.; Orudzheva, I. M.

SOURCE: Azerbaidzhanskii Khimicheskii Zhurnal (1963), (3), 63-8

CODEN: AZKZAU; ISSN: 0005-2531

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB RC6H4OH (R = C<sub>3</sub>-10 alkyl), prepared by the alkylation of PhOH with ROH in the presence of H<sub>2</sub>SO<sub>4</sub>, was added to POCl<sub>3</sub> in anhydrous C<sub>6</sub>H<sub>6</sub>, the mixture refluxed until the evolution of HCl ceased (it was supported by passing N into the mixture), and the solution distilled to give (RC<sub>6</sub>H<sub>4</sub>O)2PCl (I).

A calculated amount of freshly distilled SCl<sub>2</sub> was added to R'C<sub>6</sub>H<sub>4</sub>OH (R' = C<sub>3</sub>-5 alkyl) at

40-50°, and the mixture stirred for 2-3 hrs. at 80° and distilled to give [R'(HO)C<sub>6</sub>H<sub>3</sub>]2S (II). [R''(HO)C<sub>6</sub>H<sub>3</sub>]2S<sub>2</sub> (III) (R'' = C<sub>3</sub> and C<sub>5</sub> alkyl) was obtained by using S<sub>2</sub>Cl<sub>2</sub>. A necessary amount of II was added

to I in anhydrous C<sub>6</sub>H<sub>6</sub> in the presence of pyridine, and the mixture distilled to give

[(RC<sub>6</sub>H<sub>4</sub>O)2POC<sub>6</sub>H<sub>3</sub>R']2S (IV). III gave similarly [(RC<sub>6</sub>H<sub>4</sub>O)2POC<sub>6</sub>H<sub>3</sub>(R'')]2S<sub>2</sub> (V). IV and V were very soluble in mineral and synthetic oils,

increased the thermal stability of the oils, and gave the oils anticorrosive and flame-retardant properties.

IT 106802-66-8

(Derived from data in the 7th Collective Formula Index (1962-1966))

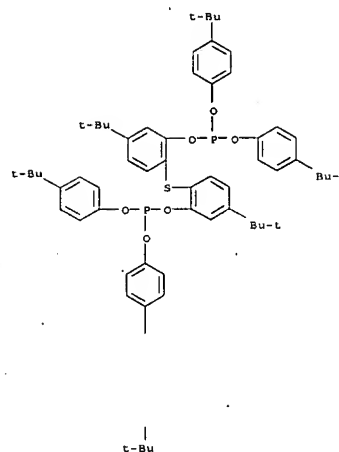
RN 106802-66-8 CAPLUS

CN Phosphorous acid, bis(p-tert-butylphenyl) ester, diester with thiobis(p-tert-butylphenol) (7CI) (CA INDEX NAME)

L4 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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IT 90439-32-0P, Phosphorous acid, bis(p-sec-octylphenyl) ester, diester with thiobis[4-isopropylphenol] 106979-60-6P, Phosphorous acid, bis(p-tert-pentylphenyl) ester, diester with thiobis[4-tert-pentylphenol] 107459-11-0P, Phosphorous acid, bis(p-tert-butylphenyl) ester, diester with thiobis[4-tert-pentylphenol] 107459-12-1P, Phosphorous acid, bis(p-tert-pentylphenyl) ester, diester with thiobis[4-isopropylphenol] 957179-89-6P, Phosphorous acid, bis(p-tert-pentylphenyl) ester, diester with thiobis[4-tert-butylphenol] 857180-16-6P, Phosphorous acid, bis(p-sec-decylphenyl) ester, diester with thiobis[4-isopropylphenol] 857180-73-5P, Phosphorous acid, bis(p-tert-butylphenyl) ester, diester with thiobis[4-tert-butylphenol]

RL: PREP (Preparation)

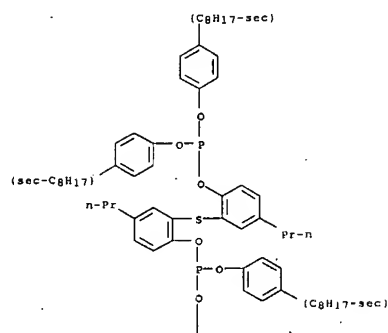
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RN 90439-32-0 CAPLUS

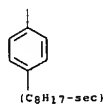
CN Phosphorous acid, bis(p-sec-octylphenyl) ester, diester with thiobis[4-isopropylphenol] (7CI) (CA INDEX NAME)

L4 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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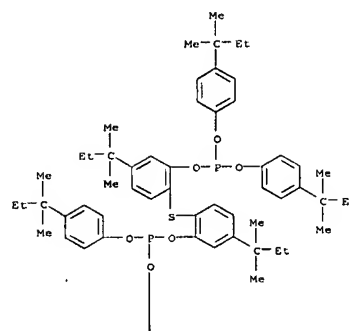
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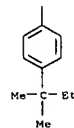
RN 106979-60-6 CAPLUS  
 CN Phosphorous acid, bis(p-tert-pentylphenyl) ester, diester with  
 thiois[4-tert-pentylphenol] (7CI) (CA INDEX NAME)

L4 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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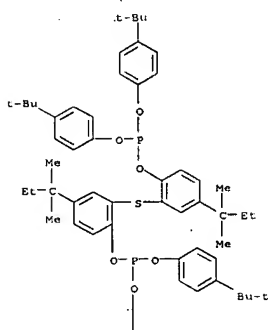
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RN 107459-11-0 CAPLUS  
 CN Phosphorous acid, bis(p-tert-butylphenyl) ester, diester with  
 2,2'-thiois[p-tert-pentylphenol] (7CI) (CA INDEX NAME)

L4 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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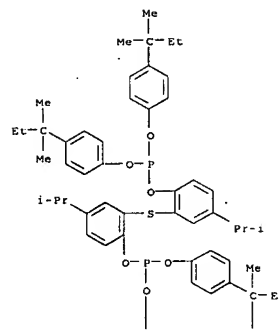
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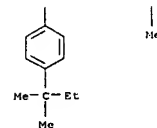
RN 107459-12-1 CAPLUS  
 CN Phosphorous acid, bis(p-tert-pentylphenyl) ester, diester with  
 2,2'-thiois[p-isopropylphenol] (7CI) (CA INDEX NAME)

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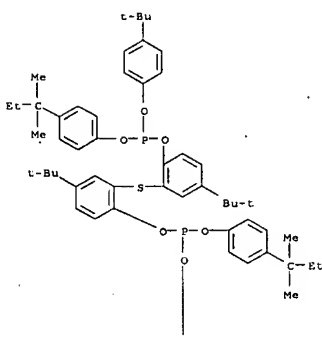


RN 857179-89-6 CAPLUS  
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 thiois[4-tert-butylphenol] (7CI) (CA INDEX NAME)

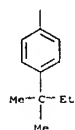
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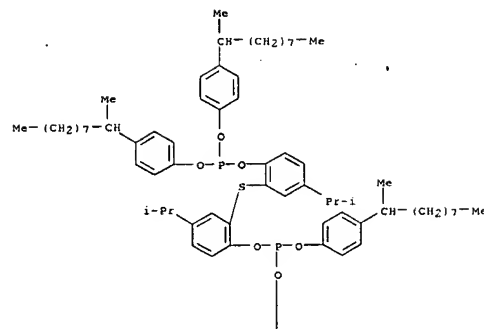


RN 857180-16-6 CAPLUS  
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 thiois[4-isopropylphenol] (7CI) (CA INDEX NAME)

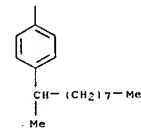
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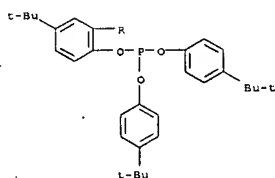


RN 857180-73-5 CAPLUS  
 CN Phosphorous acid, bis(p-tert-butylphenyl) ester, diester with  
 thiois[4-tert-butylphenol] (7CI) (CA INDEX NAME)

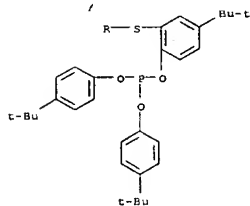
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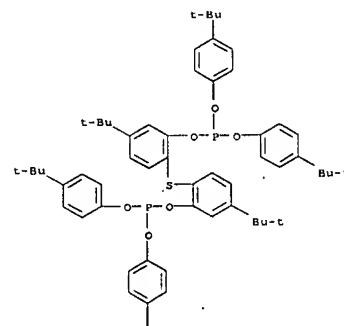
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L4 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1964:403506 CAPLUS  
 DOCUMENT NUMBER: 61:3506  
 ORIGINAL REFERENCE NO.: 61:503h, 504a  
 TITLE: General relations for polymer-petroleum oil blends  
 AUTHOR(S): Wright, W. A.; Crouse, W. W.  
 CORPORATE SOURCE: Sun Oil Co., Marcus Hook, PA  
 SOURCE: Industrial & Engineering Chemistry Product Research  
 and Development (1964), 3(2), 153-8  
 CODEN: IEPRA6; ISSN: 0196-4321  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 AB The viscosities of oil solns. of commonly used polymers  
 (polymethacrylates, methacrylate copolymers, and polyisobutylenes) were  
 studied to derive general relations. A generalized equation was  
 developed  
 which uses polymer mol. weight, polymer concentration, and viscosity of  
 the base oil  
 to give the sp. viscosity of the blend. A simplified blending chart  
 permits the relative viscosity of an oil-polymer blend at any  
 concentration to be  
 derived from data on a single blend for that system, at the exptl.  
 temperature  
 This chart also applies to solvents other than petroleum oils.  
 IT 106802-66-8  
 (Derived from data in the 7th Collective Formula Index (1962-1966))  
 RN 106802-66-8 CAPLUS  
 CN Phosphorous acid, bis(p-tert-butylphenyl) ester, diester with  
 thiois[4-tert-butylphenol] (7CI) (CA INDEX NAME)

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L4 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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L4 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1964:67372 CAPLUS

DOCUMENT NUMBER: 60:67372

ORIGINAL REFERENCE NO.: 60:118161-h,11817a

TITLE: Synthesis and study of lubricant dispersants; preparation and properties of some dialkyltetrahydronaphthalenes and their sulfonates

AUTHOR(S): Djavanmard-Haghi, H.

CORPORATE SOURCE: Inst. Franc. Petrole, Rueil-Malmaison

SOURCE: Rev. Inst. Franc. Petrole Ann. Combust. Liquides (1964), 19(1), 53-93

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB Na, Ba, and Ca sulfonates of 6-cyclohexyl-7-alkyltetrahydronaphthalene with C4-20 alkyl groups were prepared, and the Ba and Ca, C8, C12, and C18

compds. tested for dispersity at 2, 10, 20, and 50 millimoles/kg. of oil in an SAE-30 paraffinic base containing 1.5% by weight of a com. Zn dialkyl dithiophosphate in a Petter AV1 150-hr. engine test with fuel containing

0.4% S by weight. Thus, 4 preps. of 6-cyclohexyltetrahydronaphthalene were made from cyclohexene and tetrahydronaphthalene by mixture at ambient temperature and pressure using AlCl3, a mixture of BF3 and H3PO4, concentrated H2SO4, and BF3

alone as catalysts, with very similar results. The purified product was then alkylated with the appropriate alc. by using BF3 and (or) P2O5 as catalyst, sulfonated with 20% oleum, and neutralized with NaOH, Ba(OH)2, or CaCO3. The detailed analysis of the products at each stage of the preparation is discussed. The solubility of the Na and Ca sulfonates decreased in

H2O and increased in hydrocarbons with increasing size of the alkyl constituent, and all were infinitely soluble in iso-PrOH. In the engine test, the dispersant power of the Ba sulfonates was slightly inferior to that of the Ca compds., but as the excess base of both varied over the range 12-70% (and the influence of the carbonate and hydroxide was not considered), no firm conclusion can be drawn. In both cases, the lowest-mol.-weight compound was inferior to the other two, and little further

improvement could be observed with any of them when the concentration was >20

millimoles/kg. D. and n of the alkylcyclohexyltetrahydronaphthalenes decreased with increasing mol. weight, while the aniline point and viscosity

index increased. 96 references.

IT 106978-27-2 107420-47-3

(Derived from data in the 7th Collective Formula Index (1962-1966))

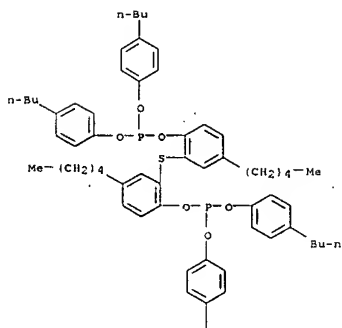
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CN Phosphorous acid, bis(p-butylphenyl) ester, diester with 2,2'-thiobis[4-pentylphenol] (7CI) (CA INDEX NAME)

L4 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

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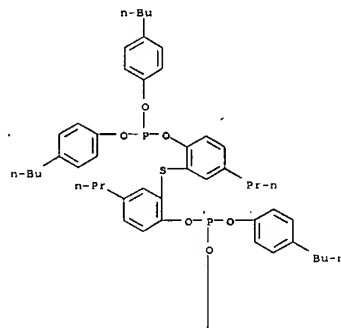
n-Bu

RN 107420-47-3 CAPLUS  
CN Phosphorous acid, bis(p-butylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] (7CI) (CA INDEX NAME)

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ACCESSION NUMBER: 1964:67371 CAPLUS

DOCUMENT NUMBER: 60:67371

ORIGINAL REFERENCE NO.: 60:11816c-f

TITLE: Synthesis of organic compounds as additives for improving the quality of lubricating oils

AUTHOR(S): Kulliev, A. M.

SOURCE: Neftekhim., Akad. Nauk Turkm. SSR (1963) 179-203

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB cf. CA 56, 15726i; 57, 16968c. The development of pour-point depressant AzNII, prepared by the condensation of 2 monochlorinated paraffin mols.

with

1 mol. naphthalene in the presence of  $AlCl_3$ , is described and the com. process is illustrated. Sulfonate additives produced from solar oil and from diesel oil were developed, the Ca salts of the solar oil sulfonic acids (AzNII-4) being less effective as engine detergents than the Ba salts of the diesel oil sulfonic acids (SB-3). The multifunctional additive AzNII-TsLATIM is synthesized as follows: monochlorinated paraffins are used to alkylate phenols in the presence of  $AlCl_3$ , and the alkylphenol is treated with  $S_2Cl_2$ , the phenol disulfide being

subsequently

neutralized with  $Ba(OH)_2$ . AzNII-7 is made by treating  $S_2Cl_2$  with unsatd. comds., present in the kerosene fraction of cracked residue, followed by condensation with phenol in the presence of  $AlCl_3$ , and finally forming

the

Ba salt. A multifunctional additive (BFX) is prepared by the

condensation

of HCHO with alkylphenols in an acid medium. Engine tests showed that

all

of the additives mentioned (except the pour-point depressant) decreased wear on engine parts and reduced the amount of sludge. Salts of dialkyl dithiophosphoric acids (AzNII-10) were prepared and successfully tested

as

oxidation inhibitors for motor oils and special lubricants. N-containing additives were synthesized by condensing alkylphenols or alkylphenol sulfides with HCHO and secondary amines. Urea and thiourea derivs. were prepared by condensing them with aldehydes and alkylphenols in the

presence

of HCl. The antioxidant AzNII-11, prepared by this method, is

recommended

for power-transfer fluids. Alkylthiophenols were synthesized in which

the

alkyl groups were Pr, Bu, sec-Bu, tert-Bu, and tert-Am. Complete phys.

and

anal. data are tabulated for all the additives mentioned.

IT 106978-27-2 107420-47-3

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 106978-27-2 CAPLUS

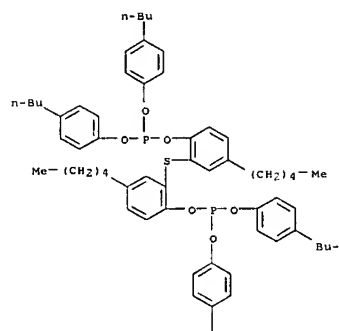
CN Phosphorous acid, bis(p-butylphenyl) ester, diester with

2,2'-thiobis[4-pentylphenol] (7CI) (CA INDEX NAME)

L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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RN 107420-47-3 CAPLUS

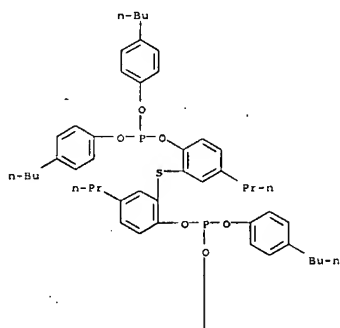
CN Phosphorous acid, bis(p-butylphenyl) ester, diester with

2,2'-thiobis[4-propylphenol] (7CI) (CA INDEX NAME)

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IT 22811-13-8P, Phosphorous acid, bis(p-decylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] 23101-37-3P, Phosphorous acid, bis(p-pentylphenyl) ester, diester with 2,2'-thiobis[4-pentylphenol] 23101-38-4P, Phosphorous acid, bis(p-nonylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] 90439-39-7P, Phosphorous acid, bis(p-octylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] 106802-65-7P, Phosphorous acid, bis(p-butylphenyl) ester, diester with 2,2'-thiobis[4-butylphenol] 106843-76-9P, Phosphorous acid, bis(p-heptylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] 106978-28-3P, Phosphorous acid, bis(p-pentylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] 106979-23-1P, Phosphorous acid, bis(p-hexylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] 107085-46-1P, Phosphorous acid, bis(p-propylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] 107385-40-0P, Phosphorous acid, bis(p-pentylphenyl) ester, diester with 2,2'-thiobis[4-butylphenol] 857180-51-9P, Phosphorous acid, bis(tert-butylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] 857180-58-6P, Phosphorous acid, bis(tert-butylphenyl) ester, diester with

L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

2,2'-thiobis[4-pentylphenol]

RL: PREP (Preparation)

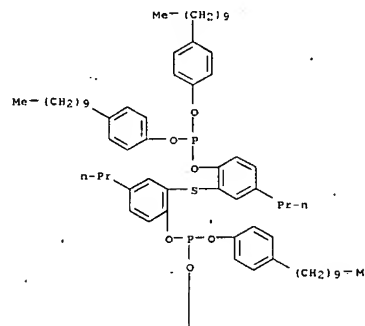
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RN 22811-13-8 CAPLUS

CN Phosphorous acid, thiobis(5-propyl-o-phenylene) tetrakis(p-decylphenyl)

ester (8CI) (CA INDEX NAME)

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RN 23101-37-3 CAPLUS

CN Phosphorous acid, thiobis(4-pentyl-o-phenylene) tetrakis(p-pentylphenyl)

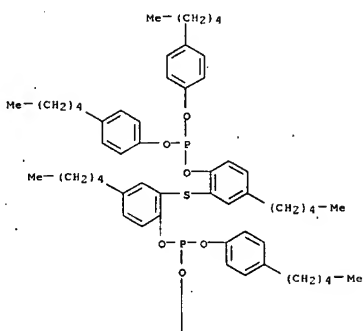
ester (8CI) (CA INDEX NAME)



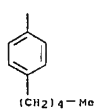
L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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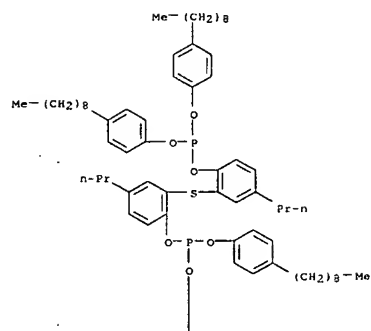


RN 23101-38-4 CAPLUS  
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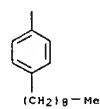
L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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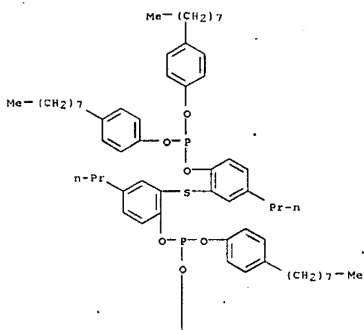


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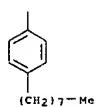
L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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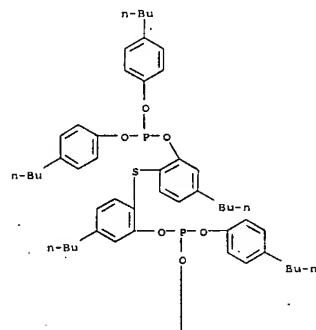


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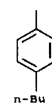
L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

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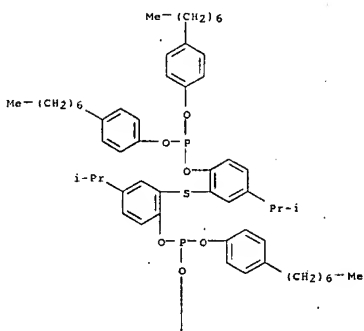
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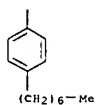
RN 106843-76-9 CAPLUS  
CN Phosphorous acid, bis(p-heptylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] (7C1) (CA INDEX NAME)

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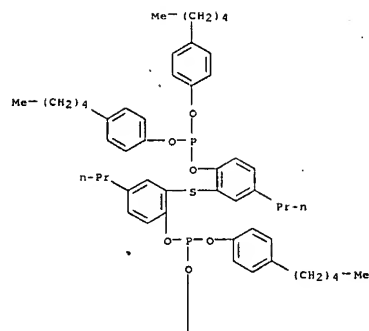
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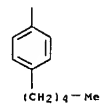
RN 106078-28-3 CAPLUS  
 CN Phosphorous acid, bis(p-pentylphenyl) ester, diester with  
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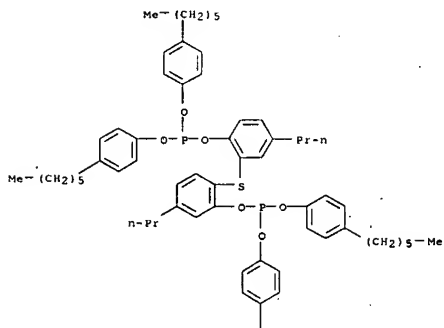
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RN 106979-23-1 CAPLUS  
 CN Phosphorous acid, bis(p-hexylphenyl) ester, diester with  
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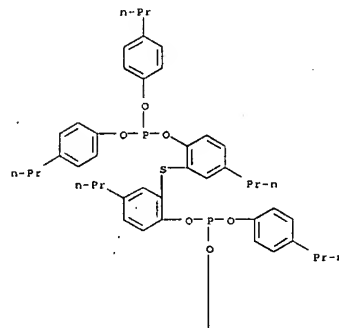
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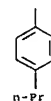
RN 107085-46-1 CAPLUS  
 CN Phosphorous acid, bis(p-propylphenyl) ester, diester with  
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L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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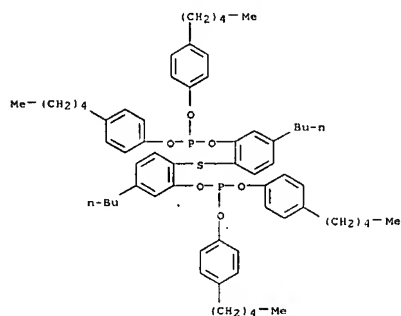


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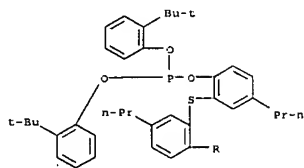
RN 107385-40-0 CAPLUS  
 CN Phosphorous acid, bis(p-pentylphenyl) ester, diester with  
 2,2'-thiobis[4-butylphenol] (7C1) (CA INDEX NAME)

L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



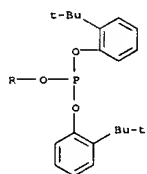
RN 857180-51-9 CAPLUS  
CN Phosphorous acid, bis(tert-butylphenyl) ester, diester with 2,2'-thiobis[4-propylphenol] (7CI) (CA INDEX NAME)

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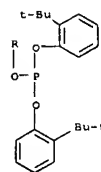
L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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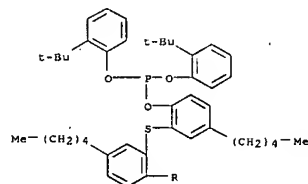
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RN 857180-58-6 CAPLUS  
CN Phosphorous acid, bis(tert-butylphenyl) ester, diester with 2,2'-thiobis[4-pentylphenol] (7CI) (CA INDEX NAME)

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

47.90

220.21

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-7.02

-7.02

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 12:39:33 ON 18 DEC 2007